



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,487	12/29/2000	Ann C. Guilford	2000-0615	4140
32943 7590 05/04/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER PRIETO, BEATRIZ	
			ART UNIT 2142	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/752,487

Applicant(s)

GUILFORD ET AL.

Examiner

Prieto B.

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-104 is/are pending in the application.
- 4a) Of the above claim(s) 15-35, 50-83 and 86-104 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14, 36-49, 84 and 85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2142

**DETAILED ACTION**

1. This communication is in reply to a Response filed under 37 C.R.F. §1.111 on December 12 2005, with or without amendment, claims 1-7, 9-14, 36-49 & 84-85 remain pending.
2. Request for change of address filed 4/17/07 by Gotts, L. (Reg. No. 31,163) does not comply with the provision set for the by 37 CFR 1.34 (C). Specifically, "a person acting in a representative capacity may not sign (C) *a change of correspondence* address (except where an executed oath or declaration has not been filed, and the patent practitioner filed the application - 37 CFR 1.33(a)).

***Claim Rejection under 35 USC §103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 36-39, and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over DUNN et. a. US 6,591,103 (Dunn hereafter) in view of SAINTON (US 5,761,621).

Regarding claims 1 and 36, Dunn teaches substantial features of the invention as claimed, including

receiving a service request at the home network provider from the wireless device, thus over an established connection (col. 3, lines 39-41 and col. 7, lines 3-5)

Art Unit: 2142

determining at the home network provider (col. 4, lines 8-10, col. 5, lines 27-30), based on a collection of information "table" downloaded to the wireless device (col. 8, lines 13-17, 42-47, 55-60) whether one of the plurality of wireless networks can provide the requested service (col. 3, lines 34-45, 54-64)

if one of the plurality of wireless networks can provide the requested service the home network choosing the one wireless network of the plurality of wireless networks for the wireless device from the one of the plurality of wireless networks can provide the requested service the home network (col. 5/lines 26-43). However, Dunn does not explicitly teach where the collection of information is downloaded from the home network provider.

Sainton' disclosure regarding an adaptive service provider selection (col. 2, lines 35-42) teaches an alternative method for downloading to the wireless device information regarding the services offered from each service carrier providers typically advertised and/or broadcasted. Specifically, wherein instead of being broadcasted by each wireless service provider, the information from all providers is compiled and broadcasted by a single entity (Fig. 10) for use in selecting carriers, this information may be broadcast in each geographical region by a transmitter, downloaded by the wireless device on predetermined channel, as part of a consumer service (col. 19, lines 26-44); and

if one of the plurality of wireless service providers can provide the requested service selecting one of the available wireless service providers that can provide the requested service (col. 17, lines 58-col. 18, line 18).

It would have been obvious to one of ordinary skill at the time the invention was to utilize the teachings of Sainton for downloading information from a service provider to the wireless device because in doing so the wireless device in the Dunn system in a coverage area where three or more communication networks compete, where at any given location and time dependent upon load, position, quality of service (e.g. building interference), any of these services might provide the best service for a given user, a selection method to choose the best one is desirable (Dunn col. 1, lines 37-51 and col. 5, lines 17-30). One would be motivated to utilize a service provider in each geographical region transmit information of the various carriers networks as a consumer service part of the service provider in network comprising one or more geographical regions to further encourage service competition as assist in selecting the most appropriate carrier as suggested by Sainton (col. 19, lines 26-44). Further, including choosing a network based on cost when receiving a user service request at the home network, as suggested by Sainton (col. 14, lines 25-43) to further provide this consumer service part of the home service provider in home network.

Art Unit: 2142

Regarding claim 2 and 37, wherein the choosing act further comprises choosing at least one network based at least in part on quality of service (Dunn col. 10, lines 29-33, Sainton col. 2, lines 48-50).

Regarding claim 3 and 38, wherein the choosing act further comprises choosing the one wireless network based at least in part on cost of service (Dunn col. 8, lines 26-29, Sainton col. 2, lines 48-50).

Regarding claim 4 and 39, wherein the choosing act further comprises choosing the one wireless network based at least in part on preferred provider agreements (Sainton: col. 19; lines 48-56).

Regarding claim 5, wherein the choosing act further comprises choosing the one wireless network based at least in part on network capacity (e.g. bandwidth) (Dunn col. 5, lines 58-64).

Regarding claim 6 and 42, wherein the choosing act further comprises choosing the one wireless network based at least in part on a network load (e.g. congestion/traffic) associated with a wireless network presently serving the wireless device (Dunn col. 5, lines 58-64).

Regarding claim 7 and 43, wherein the choosing act further comprises choosing the one wireless network based further on a wireless network load/congestion of other wireless networks of the plurality of wireless networks (Dunn col. 5, lines 58-64, and col. 6, lines 23-26).

5. Claims 9-14, 40-41, 44-49 and 84-85 rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Sainton in further view of Zicker (US 6,159,625)

Regarding claims 9 and 14, although the applied references teach that the plurality of wireless networks carriers change price, network capabilities (Dunn col. 1, lines 37-62) the wireless networks broadcast their location, frequency availability and bandwidth price and that this information is used for wireless network selection (Dunn col. 8, lines 26-29), however the applied references do not explicitly teach wherein the collection of information "table" is downloaded on a periodic basis, i.e. periodically.

Zicker teaches downloading a predetermined period of time information about each of the plurality of wireless network carriers (col. 20, lines 50-63), including periodically downloading to the

Art Unit: 2142

wireless device a list of network identifiers for choosing one wireless network of the plurality of wireless networks for the wireless device (col. 5, lines 5-25) including a periodic basis (col. 10, lines 55-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Zicker for downloading information about the wireless network carrier available and not available for use by the wireless device in the Dunn system. One would be motivated to select based on the rates charged by the competing foreign wireless network systems, where the rate structures may be complicated, and they may change from time to time. Thus, when roaming, it is desirable to obtain sufficient information upon which to base an intelligent foreign cellular system selection decision can be made, as suggested by Zicker.

Regarding claim 10, wherein the table is downloaded on a periodic basis according to updated roaming agreements (Dunn col. 9, line 64-col. 10, line 5).

Regarding claim 11, wherein the table is downloaded on a periodic basis according to when the wireless device is on e.g. during handshake procedures (Sainton col. 3, lines 13-19).

Regarding claims 12 and 13, wherein the wireless device is roaming outside a home service area, and wherein the wireless device is operating inside a home service area (Dunn: col. 6, lines 15-26).

Regarding claim 40-41, wherein the quality of service relates to a threshold level of toleration for delay in data transmission (e.g. congestion) (Dunn col. 5, lines 58-64); wherein the quality of service relates to a minimum data rate (Dunn col. 9, lines 44-52).

Regarding claims 44-45, wherein the wireless device is operating outside a home service area (Dunn col. 4, lines 51-col. 5, line 2) and wherein the wireless device is operating within a home service area (Dunn: col. 6, lines 15-26)

Regarding claim 46, comprises limitation substantially the same as claim 1, same rationale of rejection is applicable. Further limitations include the chosen wireless network supporting the service request from the wireless device within the predetermined parameter (e.g. requirement, costs) (Dunn col. 8, lines 10-29).

Art Unit: 2142

Regarding claim 47, wherein the chosen wireless network has the strongest signal of the plurality of wireless networks capable of supporting the service request (Sainton col. 16, lines 34-37).

Regarding claim 48-49, wherein the plurality of wireless networks are associated with the wireless device in its home service area and wherein the plurality of wireless networks are associated with the wireless device while roaming (Dunn: col. 6, lines 15-26).

Regarding claim 84, receiving a service request at the home network provider from the wireless device over a connection (Dunn col. 3, lines 39-41 and col. 7, lines 3-5); the home network provider assist/command "directing" the wireless device to register with a first network of the plurality of networks (Dunn col. 13, lines 11-14); and if a service request from the wireless device would be better served by a network of the plurality of networks other than the first network, establishing a parallel communication session with a second network of the plurality of networks to process the service request (Dunn col. 10, lines 35-41 and 4, line 61 to col. 5, line 3).

Regarding claim 85, receiving a service request from the wireless device over a connection (Dunn col. 3, lines 39-41 and col. 7, line 3-5); determining by the home network service provider whether the network service provider "different" could provide the requested service according to predetermined parameters (e.g. cost, requirements, quality) (Dunn col. 4, lines 8-10, col. 5, lines 27-30) based on a collection of information "table" downloaded to the wireless device (Dunn col. 8, lines 13-17, 42-47, 55-60) whether one of the plurality of wireless networks can provide/mach the requested service (Dunn col. 3/lines 34-45, 54-64), wherein if one of the plurality of wireless service providers can provide the requested service selecting one of the available wireless service providers that can provide the requested service (Sainton col. 17, lines 58-col. 18, line 18); and if the predetermined parameters match, the home network service provider directing the wireless device to obtain the requested service from the different network service provider, such as to register with the visitor register with the different network service provider to provide the requested service (Dunn col. 11, lines 18-21 and cool. 5, lines 26-43) including if one of the plurality of wireless service providers can provide the requested service selecting one of the available wireless service providers that can provide the requested service (Sainton col. 17, lines 58-col. 18, line 18).

***Citation of Pertinent Art***

6. The following prior art made of record and considered pertinent to applicant's disclosure. References which whether they constitute prior art or do not qualify as prior art may be relied upon to show the level of ordinary skill in the art at or around the time the invention was made. The references may be relevant to establishing a motivation to combine which is implicit in the knowledge of one of ordinary skill in the art (see MPEP §2141.02). Copies of Non-Patent Literature documents cited will be provided as set forth in MPEP § 707.05(a):

US 5,479,481: Soderbacka discloses as well known that when moving into a new location area, the MS is registered as a visiting subscriber with a subscriber register of the respective location area, (i.e. *visitor location register*). In general, the cellular network additionally comprises at least one centralized data base, (i.e. *home location register*), in which the information of the subscriber is stored permanently. When a new subscriber is registered with a visitor location register, information concerning the subscriber is requested from the home location register and the location information of the subscriber is simultaneously updated in the home location register. There is generally a visitor location register in association with each of the mobile telephone exchanges, and each visitor location register may serve several location areas. The basic structure and basic functions of the GSM system are well-known by persons skilled in the art and are defined in the GSM standard issued by the European Telecommunications Standards Institute (ETSI).

US 5,625,884: Gitlin et. al. discloses various techniques are known in the art for allowing a mobile unit, such as a mobile telephone, to communicate with a communications device, such as a hardwired telephone or another mobile unit. Proposals for second generation personal communications networks *require a mobile unit to perform two operations upon its entry into a new geographical area. First, the mobile unit must register at a visitor location register (VLR) and second, the mobile unit must update the contents of its home location register (HLR) to reflect its new location.* As a traveling mobile unit moves into and out of different geographic areas, the required registering and updating operations would cause a tremendous increase in signaling traffic and would also be inconvenient.



***Response to Arguments***

7. Regarding claims 1-7, 9-14, 36-49, 84 and 85 rejected as being anticipated by Dunn et. al., it is argued (P. 20 of remarks) that the applied reference does not teach a "home network" because according to applicant, "one of ordinary skill in the art recognizes that "a home network" is that of the provider, i.e. a facilities based carrier or reseller, which a customer contracts for the provision of mobile telecommunication services. Applicant further asserts that "this well-known definition" is consistent with Applicant's use of this term in the instant applicant specification (see in particular Figure 3, and the description thereof).

In response to the above-mentioned argument, applicant's interpretation of the instant application has been reviewed.

[0032] FIG. 3 illustrates a wireless device communicating with its home service provider through a roaming serving provider;

[0053] According to the first embodiment of the invention, the wireless device 12 stores a table that provides a list of preferred service providers from which the wireless device 12 should select. An example table is illustrated in FIG. 3 and will be discussed in more detail below. The table *may be* a routing table or any other table or grouping of information according to the respective protocol used to direct the wireless device 12 regarding changing its communication link to another platform or service provider. The home service provider downloads the table on a periodic basis to the wireless device 12. The table may then be updated by the network on a weekly, monthly or some other basis such as when the wireless device 12 is powered up or when roaming agreements change or rates for transmitting traffic over various networks change. Although the term "routing table" is used herein, *any kind of table of information* that can be downloaded to the wireless device 12 is contemplated as within the scope of the invention. Therefore, various wireless interface standards may employ differing kinds of "routing tables" or tables of information that direct the wireless device's registration or communication links.

[0056] FIG. 3 illustrates a roaming wireless device 12 communicating through a current roaming service provider 40 with the home service provider 42. Using this arrangement, the wireless device 12 can receive the updated table for the present invention.

There seems to be no definition explicit definition set forth with reasonable clarity, deliberateness, and precision for the claimed term "table". An inventor may define specific terms used to describe invention, but must do so "*with reasonable clarity, deliberateness, and precision*" and, if done, must "set out his uncommon definition in some manner within the patent disclosure" so as to give one of ordinary skill in the art notice of the change" in meaning (see MPEP 2111.01(III)). However, in absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.

Since there was no definition given for the term "table" in the specification, the term should be given its broadest reasonable interpretation and take on the ordinary and customary meaning attributed to it by those of ordinary skill in the art, a collection/compilation of information.

Art Unit: 2142

8. Regarding claims 1-7, 9-14, 36-49, 84 and 85 rejected as being anticipated by Dunn et. al., it is argued (P. 20 of remarks) that “a home network” is that of the provider, i.e. a facilities based carrier or reseller, which a customer contracts for the provision of mobile telecommunication services but of what it is of does not define what it is.

[AS BEST UNDERSTOOD] A network is a network and a service provider is a service provider.

A network is NOT a service provider. Applicant is urged to provide extrinsic evidence on the record this alleged “*well-known definition*” where a “home network is *that of the provider*” if indeed “*that of the provider*” defines what a “home network” means.

Applicant’s arguments argues (p. 21 of remarks) that a “home network” is an entity has been considered. However, if a “home network” is an entity, where does this entity it connect to? Does the home network, which is an entity, connect to itself? Arguments that a home network is an entity have been fully considered but not found persuasive.

9. Regarding claims 1-7, 9-14, 36-49, 84 and 85 rejected as being anticipated by Dunn et. al., it is argued (P. 20 of remarks) that the applied reference does not teach a table because the broadcast information from participating plural carriers is not the home network.

In response to the above-mentioned argument, applicant’s interpretation of the applied reference and understanding of a “home network” has been considered. However, the claim recites a home network not an “entity” as argued.

10. Applicant’s arguments filed with the above mentioned response have been fully considered but not found persuasive.

Art Unit: 2142

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Thursday from 5:30 to 2:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Hand carried or delivered to:  
Customer Service Window located at the Randolph Bldg.  
401 Dulany St.  
Alexandria, VA 22314

Faxed to the Central Fax Office:  
(571) 273-8300 (New Central Fax No.)

Or Telephone:  
  
(571) 272-2100 for TC 2100 Customer Service Office.

B. Prieto  
Primary Examiner  
TC 2100  
May 2, 2007

*Beatriz Prieto*  
**BEATRIZ PRIETO**  
**PRIMARY EXAMINER**